COE (H.C.)

Malignant Disease of the Corporeal Endometrium

BY

HENRY C. COE, M.D., M.R.C.S.,

SURGEON TO THE NEW YORK CANCER HOSPITAL, ASSISTANT SURGEON TO THE WOMAN'S HOSPITAL, ETC.

Presented by the Author

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MALIGNANT DISEASE OF THE CORPOREAL ENDOMETRIUM.[1]

I WOULD offer as an apology for introducing a subject which may not be of general interest to the profession the fact that it is one which has occupied my attention considerably of late, for the reason that I have treated no less than five cases of this somewhat rare affection at the Cancer Hospital during the past six months, and therefore feel as if I could discuss its clinical features by the light of personal experience. I have said that primary malignant disease of the body of the uterus was "somewhat rare," yet, when we remember that no uterine affection is so uncommon that any general practitioner, however limited his opportunities for gynecological work, may not encounter it, and that its early recognition is a matter of vital importance to the patient, it is evident that even this special subject may claim your earnest consideration for a few minutes. It is my purpose to present a brief *résumé* of our existing clinical knowledge with regard to this condition, rather than to enter upon a discussion of its etiology and pathological anatomy.

Under malignant disease of the corporeal endometrium I would include in their relative order of frequency carcinoma, sarcoma, and adenoma. As to the frequency with which they occur I doubt if we can yet speak positively, because of the unfortunate negligence of those who are in a position to add to the statistics. The off-hand

[1] Read before the New York State Medical Society, February 3, 1890.

statements of specialists who discuss these questions before medical societies are of little or no value from a scientific standpoint, since they are seldom supported by actual anatomical evidence. A man may say, as you read in well-known text-books which I might mention, "I have not found that carcinoma of the body of the uterus is so rare as is generally stated," but this is only his individual opinion, which has little weight in the accurate balance of the statistician. Witness the imperfect data given by such authorities as Barnes and Thomas with regard to the occurrence of uterine cancer, and the discrepancy between the statements of Sir James Simpson that he had met with 1 case of primary carcinoma of the corpus uteri to 15 cases of carcinoma of the cervix, and those of Schroeder, who observed only 1 in 53, and Zukits 1 in 420 (!). Again, Courty stated that he had seen "some 20 cases," when, a year before, Gusserow had only been able to collect from all sources 80 authentic ones, and but 1 had been observed in the Vienna hospital out of 429 cases of uterine cancer. It is useless to try to reconcile these conflicting statements. We are compelled to believe that in many instances the diagnosis was based on clinical symptoms alone, which are often misleading. Recent writers are more careful, so that we can depend more upon their statistics. Thus Williams, in his "Harveian Lectures" for 1886, throws out all cases in which the diagnosis was not confirmed by an actual examination, not of scrapings alone, but of the entire uterus after removal, and of these genuine ones he has seen only 7. Ruge and Veit have examined 21 undoubted specimens of primary cancer of the body. Even Gusserow's latest collection of 122 cases is open to suspicion, as he himself admits.

When we come to the question of the frequency of sarcoma of the corporeal endometrium, statistics are wholly unreliable, since in many such cases the diagnosis is based upon an examination of scrapings alone, or, more often, simply on the gross inspection of material curetted from the uterine cavity. I endeavored to gain some idea of

the relative frequency of these two forms of malignant disease by reviewing the entire records of the Woman's Hospital since its foundation, but no definite information was obtained. Among 9,000 patients, 15 cases of carcinoma and 18 of sarcoma of the body of the uterus are recorded, with 23 in which the form of malignant disease is not specified. Now, I know that since my first connection with the hospital, in 1881, the diagnosis was rarely confirmed by an examination of the growth *in situ*. Thus, in a single year eight cases of sarcoma were reported, the diagnosis in every instance being based on the clinical symptoms and microscopical examination of the scrapings. It is extremely difficult to deduce any facts of positive scientific value from hospital statistics, because the records are necessarily uneven by reason of the wide variations in accuracy of observation and statement among the men who make them. That there is little attempt made to differentiate the above-mentioned forms of malignant disease is evident from the following quotation from a recent work on gynecology: "When the body of the uterus is primarily affected with cancer, it is generally in one of two forms, true carcinoma, or, more frequently still, sarcoma, either round-celled or spindle-celled." In spite of the statements of clinical writers, sarcoma of the uterus (and, above all, diffuse round-celled sarcoma of the corporeal endometrium, which we are now considering) is very rare—"so rare," says a conservative writer, "that every carefully observed case which has been authenticated by microscopic examination should be placed on record." Winckel tells us that with his extended opportunities for clinical observation he sought for a case for eight years before he found one, and subsequently has seen but four. Gusserow, up to 1886, had collected only seventy-four cases, including both varieties of sarcoma. These data, furnished by accurate observers, are calculated to make us suspicious of the loose statements of those who would have us believe that they meet with half a dozen cases of sarcoma annually. Not so Goodell;

this conscientious teacher admits that he has seen only three cases in which the diagnosis was verified by the microscope. I have certainly examined only two sarcomatous uteri that were removed per vaginam, though I have several times examined scrapings of the endometrium, which in sections presented the microscopical appearances of round-celled sarcoma, the patient having at the same time the symptoms ordinarily referred to the presence of that disease; but no radical operation was done, and the patient subsequently passed from under my observation without my having been able to confirm the diagnosis.

When we come to the third form of malignant disease of the corpus uteri, diffuse recurrent adenoma (*adenoma diffusum malignum*), our statistics are still more imperfect. Several isolated cases are referred to by Winckel, Gusserow, and Schroeder, but no attempt has been made to collect all that have been reported. Few American writers describe the disease, Thomas and Goodell having each met with two cases, in none of which, however, was a section of the growth made *in situ*. Mann describes the microscopical appearances in a case of what he terms "villous degeneration of the uterine mucous membrane," the specimen having been removed *post mortem* from a patient of Lusk's. Bertolet (quoted by Goodell) reports a similar case, and Mathews Duncan is credited with two. To these I can add four undoubted cases (two of my own) in all of which I had an opportunity to examine the uterus after it had been removed during life. The specimens were exhibited at the New York Obstetrical Society, two of them on the same evening.

I present this hasty review of the literature of the subject, in order to emphasize the fact that primary malignant disease of the corpus uteri is unquestionably rare, so rare indeed that no careful man will decide that he has a case until he has weighed all the evidence and has had his diagnosis absolutely confirmed by the pathologist, and that only after the latter has examined the entire uterus. The

question of etiology need not detain us, for the reason that we know nothing about it. It may be of interest to call attention to the fact that in between twenty and thirty per cent. of the reported cases of malignant disease of the corpus uteri, the patients were sterile, which seems to show that pregnancy and parturition are not active etiological factors. Sarcoma is more common before, and carcinoma and adenoma after, the menopause. In my experience age is an uncertain element in the diagnosis of cancer; the climacteric is a far more important index of the patient's liability to malignant disease.

With the pathological anatomy of these growths you are already sufficiently familiar. Primary cancer of the endometrium has until lately been thought to assume almost invariably the form of epithelioma, which develops from the superficial epithelium, and occurs either as a diffuse infiltration of the endometrium or as circumscribed polypoid masses. More recently, pathologists are coming to the conclusion that malignant adenoma, or its further stage, adeno-carcinoma, which develops from the glandular epithelium, occurs more commonly than was formerly supposed. Into the much-vexed question of the differential diagnosis between simple adenoma and so-called adeno-carcinoma, I shall not enter here, as we are more concerned with the clinical side of the matter. It may be stated that the practical rule will be found to be a good one—to regard as histologically malignant an adenoma which infiltrates the submucous muscular layer, and in sections of which we find, beside the usual glands, nests of epithelial cells showing a well-marked alveolar arrangement.

The gross appearances of primary epithelioma of the corporeal endometrium, as I have observed them, vary according to the stage of the growth. The mucous membrane may be studded with small cauliflower masses, varying in size from a pin's-head to a marble, or there may be a general infiltration of the mucous and submucous layers with a soft, gelatinous material, or, finally, necrotic

changes may have produced a general sloughing surface, in and around which are few or no traces of the original growth. Diffuse round-celled sarcoma (we exclude, of course, the interstitial variety) is apt to be softer and more brain-like in character, presents an opaque, grayish—rather a whitish—gelatinoid appearance, is more vascular, infiltrates the deeper layers more slowly than epithelioma, and necrotic changes occur later. But it is impossible to make a macroscopic differentiation between these two varieties of malignant disease; in fact, we often find on microscopical examination that the same specimen presents the characteristic appearances of both, so that Klebs affirms that most of these growths should be described as carcino-sarcoma. The most exquisite specimen of diffuse malignant adenoma of the endometrium which I have seen, or of which I have read, was a uterus removed by Dr. W. Gill Wylie by suprapubic amputation. My description of this will be found in the "Transactions of the New York Obstetrical Society for 1886." The entire corporeal endometrium was transformed into a thick villous growth, which invaded the muscular layer, but showed no evidences of ulceration. It was clearly malignant, clinically, though microscopically it was a pure adenoma, corresponding exactly with Schroeder's description. In my first case the growth was confined to the posterior wall of the uterus, which was generally softened and infiltrated, in fact, I considered that it had already crossed the boundary line and was to be regarded as an adeno-carcinoma; in the second, as also in Dr. Bache Emmet's case, it was strictly circumscribed, being confined to an area the size of half a dollar, and had only begun to invade the submucous tissue. The two latter were described by the pathologist as "papillary adenoma," but undoubtedly belong under the same category as the first two specimens.

I shall not dwell upon the microscopical appearance of these growths, though allusion will be made to them subsequently in discussing the question of diagnosis.

For reliable information on this subject I refer you to the paper by Louis Heitzmann, in the *American Journal of Obstetrics* for September, 1887.

Considering how much has been written regarding the symptoms and diagnosis of malignant disease of the interior of the uterus, it would seem as if we possessed sufficiently explicit directions for recognizing even the most doubtful case. In point of fact there is nothing in the whole range of pelvic diagnosis which is more difficult. The classical symptoms of carcinoma and sarcoma of the corpus uteri are pain, hemorrhage, and fetid discharge. The most recent American treatise on diseases of women (Skene's) contains the following misleading statement: "Pain occurs early, and is severe and paroxysmal, sometimes remaining at its pitch for two hours. Intense menorrhagia is soon accompanied by a discharge which is profuse, watery, and fetid. . . . The vital forces are early greatly depreciated, and marked constitutional disturbance is a prominent early symptom of cancer of the corpus." In contrast with this, note the conservative remarks of that able pelvic pathologist, Winckel: "The chief symptoms are hemorrhage, pain, offensive discharge, and emaciation, as in carcinoma of the cervix, though they manifest themselves in a characteristic manner. In the first place, while the discharge of blood is very frequent, it is inconsiderable, and is only a mucus tinged with blood; profuse hemorrhages are rare, a fact which has an obvious explanation in the vascular arrangement of the inner layer of the uterus. The pains, too, are not very severe, even when the disease has made great progress." I do not think that those who have carefully observed several examples of this disease will have any difficulty in deciding which of these strongly contrasted statements is based upon facts. You will see, when I review my cases, that Skene's description fits only such as are in an advanced stage, when the signs are unmistakable. Anybody can recognize a typical case—medical or surgical—but as concerns malignant disease, the recog-

nition often comes too late. It is not enough that the gynecologist should be able to detect its existence at a stage when it is still possible to entirely remove it; the general practitioner is the one who is directly responsible for the vast majority of those mournful inoperable cases, which are referred to us at a time when we can only pronounce them hopeless. I discussed this question thoroughly in a paper on "Early Recognition of Cancer of the Cervix Uteri," which was read by title at the meeting of this Society a year ago, so that I shall not enter upon it here. The point which I wish to make is this: As general practitioners it is your duty to investigate thoroughly every case in which the symptoms are only suspicious, and not to be satisfied until you have, either in person or with the aid of a specialist, absolutely excluded malignant disease.

What are these suspicious symptoms? Not severe, lancinating pain, because that is a later symptom, due either to the exposure of nerve-endings in the deeper layers through ulceration, or, less frequently, to accompanying peritonitis; not an offensive discharge, because this, too, marks the necrotic processes of the advanced stage of the disease, and is more often absent than present; not the so-called "cachexia," on which so much stress is laid, for that is simply due to the septic absorption which attends extensive ulceration of the malignant growth. Hemorrhage, and hemorrhage of an irregular type, is the symptom which should awaken sinister suspicions, and lead to a careful examination of the patient, especially if it occurs after the menopause. It is a mistake to think that patients with malignant disease have from the outset profuse flooding, as do those with fibroid uteri. The escape of blood is rather an occasional "show," appearing especially on exertion. After the climacteric the patient sometimes labors under the delusion that her menses have returned; before that time she may think that it is only some irregularity of menstruation. A slight loss of blood after coition, which is so significant in

commencing epithelioma of the cervix, is not usually observed in cancer of the body.

Sooner or later other symptoms appear; first pain, then a gradual depreciation of the vital forces, later a fetid discharge, though the latter is often conspicuous by its absence. An attempt has been made to draw a sharp line between epithelioma and round-celled sarcoma of the endometrium, though the distinction can hardly be made clinically. With sarcoma the patient, who has usually not reached the menopause, has menorrhagia rather than atypical hemorrhages, less pain, an offensive odor is less often noted in the discharge, and the constitutional disturbance comes later—in fact, all the symptoms make their appearance slowly, and are less alarming at the first. If I were to characterize any symptom as pathognomonic, I would exclude pain, hemorrhage, and cachexia, and would choose rather the peculiar reddish, watery discharge, "like the washings of raw meat," as a German writer has described it. As regards general symptoms, patients with sarcoma present an extremely pale, anæmic (often dropsical) appearance, as contrasted with the so-called "cancerous cachexia."

The symptoms of adenoma are thus described by Winckel: " . . . the chief symptoms are abdominal and sacral pain, painful spasmodic contractions, nausea, profuse watery discharges, and irregular, frequent, and severe hemorrhages." So called "uterine tenesmus" is not peculiar to malignant disease; too much stress is laid upon it by some writers.

The question of differential diagnosis is an extremely practical and important one. In my experience the two conditions which are constantly mistaken for malignant disease of the endometrium are hyperplastic endometritis (*endometritis fungosa*) and intra-uterine fibroid, especially if the latter is sloughing. The history frequently aids us but little. If the patient is in the prime of life, and has the symptoms which we usually associate with subinvolution due to some puerperal lesion, and the hem-

orrhage is a pure menorrhagia, with no intermenstrual flow or watery discharge, the probabilities are that the case is one of simple fungous endometritis. If it is, the dull-wire curette may be relied upon to settle the diagnosis, for however doubtful may be the result of the examinations of cancerous and sarcomatous scrapings (which are often so necrosed as to show no characteristic appearances), I have found that there is seldom any doubt about the microscopic appearances of "fungosities." During the five years in which I was pathologist to the Woman's Hospital I had ample opportunities for observation in this direction, and was able repeatedly to pronounce against the diagnosis of malignant disease by an examination of scrapings. As negative evidence this is invaluable. I say "negative," because in many cases in which we suspect the presence of sarcoma the microscope does not furnish such positive evidence as we could wish. This I showed in a former paper on "Sarcoma Uteri" (*New York Medical Journal*, July 21, 1883), in which I stated that repeated examinations of scrapings from four probable cases led to conclusions similar to those of Gusserow, viz.: "The microscopical examination of isolated masses does not lead to a very definite conclusion; we often meet with bits of sarcomatous tissue which are made up of perfectly healthy mucous membrane, and, on the contrary, in cases of simple hypertrophy, with pieces which resemble small-celled sarcoma." Personally, I believe that round-celled infiltration, observed in sections of the hypertrophied endometrium, is most often mistaken for sarcoma.

I am glad to find that Heitzmann (in the article alluded to) is in accord with me on this point, because gynecologists are always complaining of the want of positiveness in pathologists' reports on scrapings. Remember that this hypertrophy of the endometrium is a common accompaniment of fibroid tumors, even when these are of small size, so that the presence of the latter growths, accompanied by the hemorrhages referred to, need not

cause alarm. As is well known, the menopause may be delayed in consequence, hence arousing the suspicion that a malignant growth is developing. Moreover, pain and a profuse (but not fetid) discharge are not seldom present. Yet I have had several cases at the Cancer Hospital in which this suspicion was so strong that it was only al layed after two or three thorough scrapings, with careful examinations of the tissue removed, since the patients had the pains and decline of health which we associate with cancer. Twice during the past week I have operated upon patients near the time of the menopause, who had been carefully watched by their physicians for months, without their feeling positive that the condition was not more serious than appeared at the time of operation. It is always gratifying to be able to say that even the most alarming symptoms can be referred to intra-uterine growths of a benign character. A small submucous polypus will sometimes give rise to symptoms which closely simulate those of malignant disease. When we remember that these growths may become sarcomatous, it is evident that they are not entirely harmless. There is only one sure way in which to settle the diagnosis, and that is to dilate the cervical canal (preferably with tents) and to explore the uterine cavity with the finger, as well as with the curette. I consider my failure to do this in two of my cases of extirpation as reprehensible, though the diagnosis, based on symptoms and the examination of scrapings, was confirmed after removal of the uterus. We need all the evidence that we can obtain, and ought not to venture upon a serious operation as long as any reasonable doubt exists as to the nature of the disease.

Hemorrhage after the climacteric has been fully established is, of course, a very significant symptom, and when accompanied by pain, offensive discharge, and declining health is pathognomonic; but even under these circumstances it is our duty to ascertain the exact condition of the endometrium. I have, in common with other gynecologists, removed sloughing polypi, which have caused

the patient and her physician grave anxiety, and have seen these symptoms disappear promptly.

I have not mentioned sloughing retained placenta as a condition which might be mistaken for malignant disease; but here ordinary attention to the history will give a hint of the true state of affairs, which will be confirmed by dilatation and the use of the dull-wire curette, with an examination of the material removed. You will see that I have laid stress upon the microscopical examination. It should never be omitted, any more than the search for casts in albuminous urine. Only by the application of all the aids of modern science, as well as of common-sense, can we avoid lamentable errors in diagnosis, and still more serious ones in treatment, such as have happened in the practice of the most eminent surgeons.

With regard to the treatment of malignant disease of the corporeal endometrium I think there should be little difference of opinion at the present day. Provided that the diagnosis has been made sufficiently early, while the uterus is still movable and the patient is in fair condition, there is only one course to pursue—to extirpate the diseased organ without delay. I believe that the vigorous application of the sharp spoon or curette to the uterine endometrium under these circumstances, as recommended by some eminent gynecologists, is attended with great danger; in fact I made an autopsy in a fatal case of perforation by the sharp curette and removed a uterus per vaginam, the wall of which would certainly have been scraped through, even with the exercise of the greatest care. What do we accomplish by so-called palliative treatment? If the patient is in the early stage of the disease, we injure her chances of recovery from a subsequent radical operation; if ulceration is already advanced and the uterine wall is generally infiltrated and softened, we expose her to the imminent risk of death from perforative peritonitis. An occasional application of pure carbolic acid or iodine and antiseptic injections (especially of creolin) are all that most surgeons will venture to use

after they have decided that extirpation of the uterus is unjustifiable.

It would be unjust not to refer in this connection to the excellent results obtained by Pawlik and Byrne with the galvano-cautery, even in cases of carcinoma of the corpus uteri. The latter states that in four out of eight cases of primary cancer in which he used the cautery the average period of relief from hemorrhage, pain, and foul discharges was two years. It is unnecessary to add that only one who has had the most extended experience with this instrument (and they are very few) should venture to introduce it within the uterine cavity under the conditions mentioned.

I have come to the conclusion, after a careful review of the statistics of vaginal hysterectomy and personal observations in twenty cases, that the only cases in which vaginal hysterectomy is justifiable are those of carcinoma, sarcoma, and recurrent adenoma of the corpus uteri in which the patient has been under observation sufficiently long to have the diagnosis established, and an examination of the uterus and its interior under ether has demonstrated both the nature of the disease, the mobility of the uterus, and the absence of serious complications, either visceral or in the glands and perimetric tissues. As Greig Smith aptly expresses it: "The patient must be in fair health, with a prospect of average longevity from general soundness of organs apart from the malignant disease."

This may be a narrow limitation of the operation, but I believe that it will one day be accepted by those who aim at remote, rather than at immediate, results in the treatment of malignant disease. The most serious criticism of American statistics (and this applies to those of laparotomy as well as of vaginal hysterectomy) is that they are so imperfect as regards the after-history of patients. We are so anxious to rush into print that we cannot wait until two, four, or even six years have elapsed before reporting the ultimate results of an operation. We consider our patients as "cured" when they leave the hospital without

bad symptoms. How superficial such a course is in comparison with the practice of German surgeons! It is calculated to bring us into great disrepute abroad, and to render our statistics valueless from a scientific stand-point. "I cannot conceive any good object," says Williams, "in operating upon a patient on a Monday and reporting the case on a Thursday, and then burying it out of sight forever."

I am not able to make a positive statement with regard to the ultimate results of extirpation of the uterus for cancer of the corpus uteri, as compared with those following hysterectomy for cancer of the cervix, but in suitable cases they are decidedly better. Out of Kaltenbach's recently reported cases of vaginal extirpation (sixty in number) seven were for malignant disease of the corpus uteri, and there was no recurrence in any of them—I mean under the conditions which I have already mentioned as alone justifying the radical operation. Though no actual data are available, gynecologists agree that the perimetric tissues are less likely to be involved in the former case, and therefore that when we have removed the uterus we have eliminated all the disease. On the other hand, the average duration of life in cases of untreated cancer of the body is thirty-one months (Pichot). Sarcoma may run a course of two or three years, and patients with adenoma may live still longer with palliative treatment. That there is always an element of doubt, even in the most favorable cases, was shown in two instances in which I performed autopsies upon patients who were in good condition at the time of the operation, which was uncomplicated; one patient with sarcoma of the corpus uteri had metastatic deposits in the intestines, the other with cancer of body of the uterus had both lungs studded with cancerous nodules, but in neither instance were there any evidences of secondary malignant disease within the pelvis. Consequently, when we speak of "curing" these patients we must not be over-confident. All that we can say is that in favorable cases of cancer of the body of the uterus we may hope to

relieve the patient for a considerable period, to prolong her life for two or three years, or rarely for five or ten ; that in cases of sarcoma of short duration the prospect of permanent relief after hysterectomy is still better, while in those of adenoma which has not yet assumed a well-marked malignant type (as in the two cases to which reference has been made) there is every reason to expect that the patient will be cured by extirpation of the uterus.

There are certain precautions to be observed in the removal of a uterus, the fundal wall of which has been softened by infiltration with malignant disease, as I have learned from personal experience. In the first place, it is highly desirable before beginning the operation to ascertain if the organ is not too large to be removed through the vaginal wound. I was on two occasions considerably embarrassed by the large size of the fundus, and I have known of the operator being obliged to open the abdomen in order to complete the operation, thereby adding immensely to its risks. Again, the position of the uterus should be noted, else one may lose valuable time in trying to antevert an organ which is retroflexed and adherent. I have found it easier to retrovert the uterus, rather than to antevert it, as is my practice in cancer of the cervix. A small, but important, detail is not to introduce the utero-tractor into the uterine cavity, since it almost invariably tears out and is apt to perforate the wall, allowing septic material to enter the peritoneal cavity at an early stage in the operation, as well as causing it to escape from the cervix and ooze over the vaginal wound. It is better to plug the cervical canal with iodoform gauze, and to make traction upon the cervix alone. Caution should also be exercised in drawing down the fundus, lest the softened uterine wall should be badly lacerated by the tearing out of the hook or volsella, allowing acrid pus to escape into the cavity, as has happened to me, once with bad results. In short, more than ordinary care must be exercised in handling the uterus not to perforate its wall. The ovaries and tubes should invariably be extirpated, even at the risk

of considerably prolonging the operation, as it is a well-established fact that in malignant disease of the corpus uteri the mucous lining of the tubes is liable to be affected by direct continuity; hence there is a special reason for insisting upon their complete removal which is not present in cases of cancer of the cervix uteri.

But, even after using the greatest care in the selection of proper cases for operation, and limiting himself strictly to such as I have described as alone suitable for hysterectomy, the conscientious surgeon, however elated he may feel at the completion of an operation rapid in its execution and faultless in its details, must in his heart acknowledge the truth of Reeves Jackson's criticism that "the successful removal of a cancerous uterus is a very different thing from the successful removal of a uterine cancer."

Appended are the condensed histories of four typical cases of malignant disease of the corpus uteri, three of which occurred in my service at the New York Cancer Hospital:

Case I. *Epithelioma Corporis Uteri.* — The patient was fifty-one years of age, and had had little or no pain prior to her entrance into the Cancer Hospital, in October, 1888 (service of the late Dr. J. B. Hunter). She had never had any fetid discharge, nor any hemorrhage other than an occasional "show" of blood. Considerable doubt was felt as to the diagnosis because of the excellent condition of the patient. The dull-wire curette was introduced after she was under ether, and brought away a quantity of grayish, brain-like material, which was, at the time, regarded as typical sarcoma. Vaginal hysterectomy was performed, the broad ligaments being secured with clamps. The patient made a rapid recovery, and returned home at the end of four weeks.

[In discussing this case, when reported at a meeting of the New York Obstetrical Society, Dr. Byrne said: "I have seen quite a number of cases of intra-uterine cancer of the character shown in the specimen, and I have been re-

peatedly struck with the fact that in many of them there is not only no cachexia, but nothing to indicate that serious trouble exists, except hemorrhage. With regard to the pain said by nearly all authors to be almost characteristic of intra-uterine carcinoma, it is not borne out by clinical experience. . . . The pain so much spoken of by some authors, both old and recent, is purely fictitious."]

After Dr. Hunter's death the patient came under my care. She remained in good health for nearly a year, when she began to have pains in the back, with an occasional slight discharge of blood. On examination I found a suspicious, angry-looking nodule at the posterior edge of the wound. This has increased in size until it has become a mass as large as a small orange, which encroaches upon the rectum. It bleeds easily to the touch, but seldom spontaneously. There is no offensive discharge, the patient remains comfortable, and her general health has not yet been impaired.

Case II. *Epithelioma Corporis Uteri.*— Mrs. C——, aged fifty-five, a widow, had borne seven children, the youngest aged fourteen. Her grandmother and an aunt died of carcinoma uteri. She passed the menopause at forty-eight, and enjoyed perfect health until nine months before I saw her, when she first noticed an occasional slight bloody discharge from the vagina, which later became quite constant but odorless, and was accompanied by backache and occasional shooting pains through the pelvis. Her health was not impaired, and she presented the appearance of a robust woman. Two or three months before she was seen by me I examined some material curetted from the uterine cavity by the late Dr. Hunter, not knowing the history of the patient, and reported that it was probably round-celled sarcoma; I afterward learned that this was the patient in question. During Dr. Hunter's illness, April, 1889, she was sent to the Cancer Hospital by her physician, Dr. Pettit, and came under my care. I examined her several times, removing with the curette bits of soft, friable

material, which under the microscope presented numerous groups of cells of an epithelial type, but no distinct alveolar structure. The uterus was large, retroflexed, and fairly movable; the endometrium was soft and spongy, bleeding easily. As the patient was apparently in perfect health, there was no foul discharge, and the microscopical evidence was not positive, I was not sure of the diagnosis and asked Dr. Bull to see the patient in consultation. He believed that the condition was malignant disease of the corpus uteri, and advised extirpation of the uterus. Another fragment of tissue was removed from the interior of the uterus, and was submitted to the pathologist. After a careful examination he was unable to find microscopical evidences of malignant disease.

The operation was somewhat complicated, and occupied nearly an hour. Not only was the uterus retroflexed and firmly adherent, but its wall was so softened that the utero-tractor, though introduced to the fundus, tore out several times. There was an enormous cystocele, which rendered it difficult to separate the bladder and to keep it up out of the way. In drawing down the fundus with a volsella, the wall was perforated, and a quantity of soft, brain-like material oozed through the opening into the peritoneal cavity; it was thoroughly sponged out. The adnexa were also removed with some difficulty. The broad ligaments were secured with compression-forceps, which were removed at the end of thirty-six hours. The patient made a good recovery, and after cicatrization was complete her cystocele was found to be almost cured. She is now enjoying good health.

The case was of interest from the stand-point of diagnosis. Here was a patient with slight, irregular hemorrhages (appearing after the menopause had been fully established), no foul discharge, little if any pain, and in appearance the picture of health. Several suspicious fragments were removed from the uterus by the curette, and were examined microscopically without positive results. A competent pathologist reported that the frag-

ment sent to him was simply granulation tissue ; he had received a portion that was undergoing ulceration. In spite of the negative evidence, the body of the uterus was found at the operation to be so extensively diseased that the wall would soon have been perforated.

[I quote from Dr. Wylie's remarks on this case, when it was reported at the Obstetrical Society, to illustrate what I said about loose statements regarding the frequency of certain rare pathological conditions :

"I think the percentage of cases of cancer of the body of the uterus given by Dr. Coe is entirely too small. According to my own experience I would place it nearer ten per cent. One reason why it has been placed much lower is the probable fact that many cases have not been diagnosticated. Out of six or seven cases in which I have done hysterectomy for cancer this year, two were cases of cancer of the body of the uterus. With regard to the microscopical examination, I may say that practically I consider it worth hardly anything. With regard to the use of the curette, I think that where the uterus is firm there is no more danger attending the steel instrument than the other. It has the advantage of leaving a smooth surface and not macerating the tissues. I have sent the material scraped away by the curette to as many as three pathologists for microscopical examination in some cases of cancer of the body of the uterus, yet all were unable to make a diagnosis. They could simply say that it was doubtful. Now, when a woman comes to me with a history of flowing two or three years, especially if it is five or six years after the menopause, and the flowing cannot be readily accounted for in any other way, I am prepared almost to take it for granted that she has cancer, if not of the cervix, then of the body of the uterus. In two cases within about a year, I curetted the uterus on three occasions ; microscopical examinations were made with more or less negative results ; then, taking the history as a guide, I performed hysterectomy, and in both cancer of the body of the uterus was found. Since we have learned

to recognize these cases, we will have more of them than formerly. Some of the patients have only a little watery discharge, with admixture of some blood, continuing perhaps two, three, or even five years, until the body of the organ has become largely involved, while the internal os is nearly closed and the cervix apparently normal."]

Case III.—Mrs. McC——, aged sixty-three, entered my service in December, 1889. She was a widow who had borne seven children, and stated that her health had been good until seven months before, when it began to decline without any assignable cause. About this time she began to have occasional slight hemorrhages. For a few weeks prior to her entrance she suffered with severe backache. While under observation in the hospital she had no pain or hemorrhage, and there was only a slight, non-offensive vaginal discharge. In this case I settled the diagnosis positively by dilating the cervical canal with tents, and introducing my finger into the uterine cavity A number of soft cauliflower masses were felt on the posterior wall, one as large as a marble, from which I removed a good sized piece with the sharp curette. It showed under the microscope the structure of adeno-carcinoma. A week later I performed vaginal hysterectomy, using the clamps. The operation presented no especial difficulties. The ovaries and tubes were removed. The patient, being an alcoholic, had an attack of delirium tremens, jumped up and walked around the ward on the third night after the operation, but suffered no ill effects from it and was sitting up before four weeks had elapsed. She was discharged well, and will be kept under careful observation.

Case IV.—Miss F——, aged fifty, entered my service through the courtesy of Dr. Cleveland in December, 1889. She had reached the menopause seven years before; two years later she began to have slight hemorrhages at infrequent intervals, but had never had any offensive discharges. She was in the Newark Hospital in March, 1889, when the uterine cavity was thoroughly curetted, and this

operation was repeated at the Woman's Hospital in September of the same year, but, unfortunately, no examination of the scrapings was made. The hemorrhages were always checked after each curetting, but in a few weeks they recurred.

For a few months prior to her entrance she had had severe paroxysmal pains, which began about eleven o'clock every morning and lasted from two to four hours. On entrance the patient's general health was excellent. I found her uterus small, movable, and insensitive. The introduction of a dull-wire curette gave pain and caused a flow of blood. I removed a small bit of tissue, sections of which I examined microscopically without positive results. I could say positively that it was not fungous endometritis, and that it was not sarcoma. In one section the presence of groups of epithelioid cells pointed to a cancerous element. Taking all the evidence into consideration I came to the conclusion that there probably existed malignant disease of the corpus uteri, and decided to perform hysterectomy. The operation was the most difficult that I had ever seen or done, as the patient was a virgin and the working space was so limited that it was necessary to divide the perineal body and to incise the vaginal wall in order to gain room. It was impossible to reach and remove the ovaries and tubes, or to apply a single ligature. The patient had considerable shock, but rallied well, and is now in good health and entirely free from pain.

Dr. Freeborn, the pathologist, reported that the specimen was a rare and interesting one, since microscopically it was a papillary adenoma. It was strictly limited to a small area on the posterior wall. He regarded it as clinically only a little less malignant than cancer, an opinion fully confirmed by its rapid recurrence after curetting. He had seen only one other specimen—Dr. Bache Emmet's, to which allusion has been made. The prognosis as regards a permanent cure is better than in any case that I have seen.

[Since writing the above I have extirpated a uterus

which was the seat of round-celled sarcoma of the corporeal endometrium. The patient was referred to me by Dr. A. M. Jacobus, who had made a diagnosis of probable malignant disease several months before. The operation was quite easy, but the patient was in poor general condition, having contracted kidneys, and died on the fourth day.]